

CLAIMS

1. A mobile telephone-operated video telesurveillance device (1, 110), the telephone comprising a transmitter (2) and a receiver (4) operated by a control member (8) for connection to a telephone network (120), the telephone comprising means for capturing sound signals BFm and video signals Vc by dint of a microphone (3) outputting the sound signals BFm and of a camera (6) outputting the video signals Vc of video pictures and, on the other hand, receiving and reproducing sound signals BFe and video signals Ve intended for, respectively, a sound reproduction means (5) and a video reproduction screen (7), the telephone comprising a user input interface (9) and a stand-alone power supply source (10),

characterised in that the telephone includes moreover an analysis and diagnostic module (20) of at least video pictures fitted with a memory for storing at least one telesurveillance application program, an input to said module (20) being connected to the output of the camera (6) and receiving the video signals Vc, the module being connected by at least one output with the control member (8) for sending at least one diagnostic datum D to said control member (8) in relation to the analysis and to the diagnostic of the video signal by a calculation means (23, 20') programmed (25) by an application program of said module, the diagnostic data D being instructions acting upon the control member.

2. A device according to claim 1, characterised in that the analysis and diagnostic module receives moreover at input the sound signals BFm and that the module generates

diagnostic data D also in relation to the analysis and to the diagnostic of the sound signals.

3. A device according to claim 1 or 2, characterised in that the instructions acting upon the control member are one
5 or several actions selected by no way of limitation among the following list :
- waking up telephone members in standby,
 - placing telephone members in standby,
 - calling a number over the network,
 - 10 transmitting recorded sounds,
 - live transmission of sounds,
 - transmission of a short message,
 - transmission of a live video sequence,
 - transmission of a recorded video sequence,
 - 15 transmission of a video analysis,
 - transmission of a video diagnostic,
 - transmission of multimedia compatible data for INTERNET,
 - dialogue between the telephone and the number called,
 - in case of using a positioning peripheral, controlling said
 - 20 peripheral via positioning instructions from the network,
 - end of call.

4. A device according to claim 1, 2 or 3, characterised in that the analysis and diagnostic module includes a reprogrammable memory for the program (25) of the
25 calculation means (23, 20').

5. A device according to claim 4, characterised in that the analysis and diagnostic module receives moreover digital data D from the control member and in that the program of the calculation means comes from the network and is transferred
30 into the reprogrammable memory in the form of digital data D.

6. A device according to claim 4 or 5, characterised in that the analysis and diagnostic module receives moreover digital data D from the control member, the telephone comprising moreover a chip card reader legible by the control member and in that the program of the calculation means comes from the chip card and is transferred into the reprogrammable memory in the form of digital data D.

7. A device according to any of the previous claims, characterised in that the analysis and diagnostic module includes a video picture acquisition and memorisation module (21) and a sound detection means (22) for interfacing with the video and sound signals, a digital signal processor or micro-processor-type calculation means (23), the memory for the application program (25) and a dialogue unit (24) for interfacing with the control member (8).

8. A device according to any of the claims 1 to 6, characterised in that the analysis and diagnostic module includes at least one spatial and time-division processing unit (53) and a set of histogram calculation units ($51_{a00} \dots 51_{a33}$) whereof the material and functional configuration depends on the application program.

9. A device according to any of the previous claims, characterised in that the analysis and diagnostic module (20) is a block IP which may be integrated into an electronic circuit.

10. A device according to any of the previous claims, characterised in that the telephone (1, 110) is arranged on a positioning peripheral (100, 106) enabling at least to direct said telephone in space according to positioning instructions (OM) issued from the telephone, said positioning instructions being generated by the analysis and diagnostic module (20).

11. A device according to claim 10, characterised in that the positioning peripheral includes a first bracket (100) wherein is arranged the telephone, the first bracket (100) being itself arranged in a second bracket (106), the first and
5 the second bracket being articulated together by at least one motor (104, 105) operated by a control circuit (103) receiving the positioning instructions (OM).

12. A device according to claim 11, characterised in that the second bracket includes two motors (104, 105) whereof
10 both rotors are laid out along two axes substantially perpendicular to one another, the control circuit (103) and a charger intended for recharging the stand-alone power supply source (10) of the telephone.

13. A device according to claim 10, 11 or 12,
15 characterised in that the positioning peripheral of said telephone enables moreover to move in space said telephone according to positioning instructions (OM).

14. A device according to any of the claims 10 to 13,
20 characterised in that moreover positioning instructions transit over the network.

15. A device according to any of the claims 10 to 14,
characterised in that the positioning instructions (OM) are transmitted to the positioning peripheral device (100, 106) by dint of a telephone connector comprising a series data
25 transmission link.

16. An operating method of a mobile telephone-operated video telesurveillance device (1, 110), the telephone comprising a transmitter (2) and a receiver (4) operated by a control member (8) for connection to a telephone network
30 (120), whereas the telephone can, on the one hand, capture and transmit sound signals B_{Fm} and video signals V_c issued

respectively from a microphone (3) generating the sound signals BFm and from a camera (6) generating the video signals Vc of video pictures and, on the other hand, receiving and reproducing sound signals BFe and video signals Ve intended for, respectively, a sound reproduction means (5) and of a video reproduction screen (7), the telephone comprising a user input interface (9) and a stand-alone power supply source (10), wherein pictures issued from the camera (6) are transmitted to a receiving apparatus (130) connected to the network (120) and which can visualise the video pictures,

characterised in that a device according to any of the previous claims is implemented and wherein the telephone includes moreover an analysis and diagnostic module (20) of at least video pictures fitted with a memory for storing at least one telesurveillance application program, an input to said module (20) being connected to the output of the camera (6) and receiving the video signals Vc, the module being connected by at least one output with the control member (8) for sending at least one diagnostic datum D to said control member (8) in relation to a decision resulting from the analysis and from the diagnostic of the video signal by a calculation means (23, 20') programmed (25) by an application program of said module, the diagnostic data D being instructions acting upon the control member and in that the connection to the receiving apparatus results from the decision generated by the analysis and diagnostic module.

17. A method according to claim 16, characterised in that the receiver (130) is a mobile or fixed telephone.

18. A method according to claim 16, characterised in that the receiver is a computerised means capable of

visualising multimedia compatible data for INTERNET, a server connected over the network (120) and arranged between the telephone (1, 110) and the receiver (130) providing the interface between the telephone data (1, 110)
5 and the INTERNET network.

19. An application of the operating method of any of the claims 16, 17 or 18 wherein a toddler is monitored remotely, the application program enabling at least the analysis and the diagnostic of the toddler's movements and the connection to
10 the receiver when movements are diagnosed.

20. A public telesurveillance network, characterised in that it is composed of a mobile phone network comprising a transmission exchange, over such network, of application telesurveillance programs for a telephone-operated video
15 telesurveillance device according to any of the claims 1 to 15, programs which may be downloaded by said mobile phones.